

FORM	FORM PTO - 1449				ATTY DOCKET NO.: ASC-023DVC2						
		AL INFORMA	TION		APPLICANT: Fitzgerald						
DISCLO	DSURE	STATEMENT		•	SERIAL NO.: 10/022,689						
					FILING DATE: December 17, 2001						
					GROUP:		28	13			
<u> </u>	- · · · ·		U.S.	PATENT	DOCUMI	ENTS				<u>. ".</u>	
EXAM. INIT.		DOCUMENT NUMBER	DATE	NAME			CLASS	SUB CLASS	1	ING DAT	
Sh	A117	5,424,243	06/13/1995	Takasaki			-		 		
1	A118	2002/0052084	05/02/2002	Fitzgerale	i		-		05/1	6/2001	
	A119	2003/0077867	04/24/2003	Fitzgerald	-				07/1	6/2001	
DL	A120	6,602,613	08/05/2003	Fitzgeral	i				01/1	7/2001	
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EXAM. INIT.		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB CLASS	FILING DATE	ABSTR/ ONLY	ACT	ENGL LANG (Y/N)	
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U.S. PATENT DOCUMENTS

EXAM. INIT.		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE IF APPROPRIATE
He	Al	4,010,045	03/01/1977	Ruehrwein			
,	A2	4,710,788	12/01/1987	Dambkes et al.		1	
	A3	4,987,462	01/22/1991	Kim et al.			
	A4	4,990,979	02/05/1991	Otto	1		
	A5	5,013,681	05/07/1991	Godbey et al.		 	
	A6	5,155,571	10/13/1992	Wang et al.		 	1
	A7	5,166,084	11/24/1992	Pfiester		 	1
	A8	5,202,284	04/01/1993	Kamins et al.	-	 	
	A9	5,207,864	05/04/1993	Bhat et al.	 	 -	<u> </u>
	A10	5,208,182	05/04/1993	Narayan et al.		 	
	All	5,212,110	05/18/1993	Pfiester et al.		 	
\neg	A12	5,221,413	06/22/1993	Brasen et al.			
	A13	5,241,197	08/31/1993	Murakami et al.		<u> </u>	
_	A14	5,285,086	02/08/1994	Fitzgerald, Jr.	+		
	A15	5,291,439	03/01/1994	Kauffmann, et al.	1.		
_	A16	5,310,451	05/10/1994	Tejwani et al.		 	
_	A17	5,316,958	05/31/1994	Meyerson		<u> </u>	
	A18	5,346,848	09/13/1994	Grupen-Shemansky et al.			
<u> </u>	A19	5,374,564	12/20/1994	Bruel	- 		
	A20	5,413,679	05/09/1995	Godbey			
	A21	5,426,069	06/20/1995	Selvakumar et al.	 		
	A22	5,426,316	06/20/1995	Mohammad	 		
	A23	5,461,243	10/24/1995	Ek et al.	 	 	
	A24	5,461,250	10/24/1995	Burghartz et al.	 		
	A25	5,462,883	10/31/1995	Dennard et al.	+		
	A26	5,476,813	12/19/1995	Naruse	+	 	
-+	A27	5,479,033	12/26/1995	Baca et al.	+	 	
- 	A28	5,484,664	01/16/1996	Kitahara et al.	+	 	
	A29	5,523,243	06/04/1996	Mohammad	+	<u> </u>	
VIA	A30	5,523,592	06/04/1996	Nakagawa et al.	+		

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EXAM. INIT.		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE IF APPROPRIATE
Mh	A31	5,536,361	07/16/1996	Kondo et al.			
700	A32	5,540,785	07/30/1996	Dennard et al.			
	A33	5,596,527	01/12/1997	Tomioka, et al.			
	A34	5,617,351	04/01/1997	Bertin, et al.			
	A35	5,683,934	11/04/1997	Candelaria		 	
	A36	5,698,869	12/16/1997	Yoshimi et al.		 	
	A37	5,728,623	03/17/1998	Mori			
	A38	5,739,567	04/14/1998	Wong			
	A39	5,759,898	06/02/1998	Ek et al.			
_	A40	5,777,347	07/07/1998	Bartelink		 	
	A41	5,786,612	07/28/1998	Otani et al.			
	A42	5,786,614	07/28/1998	Chuang, et al.			
_	A43	. 5,792,679	08/11/1998	Nakato		1	
	A44	5,808,344	09/15/1998	Ismail et al.			
	A45	5,847,419	12/08/1998	Imai et al.			
_	A46	5,877,070	03/02/1999	Goesele et al.			
	A47	5,906,708	05/25/1999	Robinson et al.			
<u> </u>	A48	5,912,479	06/15/1999	Mori et al.			
1	A49	5,943,560	08/24/1999	Chang et al.			
	A50	5,963,817	10/05/1999	Chu et al.			
	A51	5,966,622	10/12/1999	Levine et al.			
	A52	5,998,807	12/07/1999	Lustig et al.			
	A53	6,013,134	01/11/2000	Chu et al.			
	A54	6,033,974	03/07/2000	Henley et al.			
	A55	6,033,995	03/07/2000	Muller			
	A56	6,058,044	05/02/2000	Sugiura et al.			
	A57	6,074,919	06/13/2000	Gardner et al.			
-t	A58	6,096,590	08/01/2000	Chan et al.			
	A59	6,103,559	08/15/2000	Gardner et al.			
CO 1-	A60	6,111,267	08/29/2000	Fischer et al.			

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ILS. PATENT DOCUMENTS

EXAM. INIT.		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE IF APPROPRIATE
DL	A61	6,117,750	09/12/2000	Bensahel et al.			
	A62	6,130,453	10/10/2000	Mei, et al.			
	A63	6,133,799	10/17/2000	Favors, Jr., et al.		 	
	A64	6,140,687	10/31/2000	Shimomura et al.	1	 	
	A65	6,143,636	11/07/2000	Forbes, et al.			
	A66	6,153,495	11/28/2000	Kub et al.			
	A67	6,154,475	11/28/2000	Soref et al.			
	A68	6,160,303	12/12/2000	Fattaruso		 	-
	A69	6,162,688	12/19/2000	Gardner et al.			-
	A70	6,184,111	02/06/2001	Henley et al.			
	A71	6,191,007	02/20/2001	Matsui et al.			
	A72	6,191,432	02/20/2001	Sugiyama et al.			
	A73	6,194,722	02/27/2001	Fiorini et al.	·		
	A74	6,204,529	03/20/2001	Lung, et al.			1
\top	A75	6,207,977	03/01/2001	Augusto			
	A76	6,210,988	04/03/2001	Howe et al.			
	A77	6,218,677	04/17/2001	Broekaert			
	A78	6,232,138	05/15/2001	Fitzgerald et al.			
	A79	6,235,567	05/22/2001	Huang		Ì	
	A80	6,242,324	06/05/2001	Kub et al.	1	<u> </u>	
	A81	6,249,022	06/19/2001	Lin, et al.			
	A82	6,251,755	06/26/2001	Furukawa et al.		 	
	A83	6,261,929	07/01/2001	Gehrke et al.			
	A84	6,266,278	07/24/2001	Harari, et al.			
	A85	6,271,551	08/07/2001	Schmitz et al.	 	 	
	A86	6,271,726	08/07/2001	Fransis et al.	 	 	
	A87	6,313,016	11/06/2001	Kibbel et al.	1	 	
_	A88	6,316,301	11/13/2001	Kant	 		
.17	A89	6,323,108	11/27/2001	Kub et al.	 		
W.	A90	6,329,063	12/11/2001	Lo et al.			

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EXAM. INIT.		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE IF APPROPRIATE
Du	A91	6,335,546	01/01/2002	Tsuda et al.			07/30/1999
1	A92	6,339,232	01/15/2002	Takagi			09/20/1999
	A93	6,368,733	04/09/2002	Nishinaga		<u> </u>	08/05/1999
	A94	6,372,356	04/16/2002	Thornton et al.			04/028/2000
	A95	6,399,970	06/04/2002	Kubo et al.			09/16/1997
	A96	6,407,406	06/18/2002	Tezuka			06/29/1999
	A97	6,425,951	07/30/2002	Chu et al.			08/06/1999
	A98	6,429,061	08/06/2002	Rim			07/26/2000
	A99	6,420,937	07/16/2002	Akatsuka et al.			06/14/2001
	A100	6,521,041	02/18/2003	Wu et al.			04/09/1999
	A101	6,555,839	04/29/2003	Fitzgerald			05/16/2001
	A102	6,583,015	06/24/2003	Fitzgerald et al.			08/06/2001
_	A103	6,521,041	02/18/2003	Wu et al.			04/09/1999
	A104	2001/0003364	06/14/2001	Sugawara et al.			12/08/2000
	A105	2002/0043660	04/18/2002	Yamazaki et al.			06/25/2001
	A106	6,593,191	07/15/2003	Fitzgerald		1	05/16/2001
	A107	6,573,126	06/03/2003	Cheng et al.			08/10/2001
	A108	2002/0096717	07/25/2002	Chu et al.			01/25/2001
	A109	2002/0100942	08/01/2001	Fitzgerald et al.			06/19/2001
	A110	2002/0123167	09/05/2002	Fitzgerald		1	07/16/2001
	A111	2002/0123183	09/05/2002	Fitzgerald		1.	07/16/2001
	A112	2002/0123197	09/05/2002	Fitzgerald et al.		1	06/19/2001
	A113	2002/0125471	09/12/2002	Fitzgerald et al.		1	12/04/2001
	A114	2002/0125497	09/12/2002	Fitzgerald		- "	07/16/2001
T	A115	6,603,156	08/05/2003	Rim		T	03/31/2001
SI.	A116	2003/0003679	01/02/2003	Doyle et al.			06/29/2001

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EXAM.	V	DOCUMENT	DATE	COUNTRY	CLASS	SUB	FILING	ABSTRACT	ENGLISH
INIT.		NUMBER		CODE		CLASS	DATE	ONLY	LANG (Y/N)
AL	B1	41 01 167	07/23/1992	DE				NO	NO
1	B2	0 587 520	03/16/1994	EP				NO	YES
	В3	0 683 522	11/22/1995	EP				NO	YES
	B4	0 828 296	03/11/1998	EP				NO	YES
	B5	0 829 908	03/18/1998	EP				NO	YES
	В6	0 838 858	04/29/1998	EP				NO	NO
	В7	1 020 900	07/19/2000	EP				NO	YES
	B8	1 174 928	01/23/2002	EP	<u> </u>			NO	YES .
	В9	2 342 777	04/19/2000	GB				YES	YES
	B10	10-270685	10/09/1998	JP				NO	YES
	B11	11-233744	08/27/1999	JP				NO	NO
	B12	2000-021783	08/31/2000	JP		·		NO	YES
	B13	2000-031491	01/28/2000	JP	:			NO	NO
	B14	2001-319935	11/16/2001	JP .				NO	YES
	B15	2002-076334	03/15/2002	JP				NO	YES
	B16	2002-164520	06/07/2002	JP				NO	YES
	B17	2002-289533	10/04/2002	JР				NO	YES
	B18	4-307974	10/30/1992	JP				NO	NO
	B19	5-166724	07/02/1993	JР	l			NO	Abstract Only
	B20	6-177046	06/24/1994	JP		<u> </u>		NO	Abstract Only
	B21	7-106446	04/21/1995	JР		 	 	NO	NO
	B22	7-240372	09/12/1995	JP		<u> </u>		NO	Abstract Only
	B23	00/48239	08/17/2000	wo	<u> </u>	 		NO	YES
100	B24	00/54338	09/14/2000	wo	 	 	 	NO	YES

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EXAM. INIT.		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB CLASS	FILING DATE	ABSTRACT ONLY	ENGLISH LANG (Y/N)
De	B25	01/022482	03/29/2001	wo				NO	YES
,	B26	01/54202	07/26/2001	wo				NO	YES
	B27	01/93338	12/06/2001	wo		1		NO	YES
1	B28	01/99169	12/27/2001	wo			 	NO	YES
	B29	02/071488	09/12/2002	wo		 		NO	YES
	B30	02/071491	09/12/2002	wo	 	<u> </u>		NO	YES
	B31	02/071495	09/12/2002	wo	<u> </u>			NO	YES
	B32	02/082514	10/17/2002	wo	-		 	NO	YES
	B33	02/13262	02/14/2002	wo		 	 	NO	YES
1	B34	02/15244	02/21/2002	wo		ļ		NO	YES
1	B35	02/27783	04/04/2002	wo				NO	YES
1	B36	02/47168	06/13/2002	wo .				NO	YES
+	B37	98/59365	12/30/1998	wo		 		NO	YES
1	B38	99/53539	10/21/1999	wo	 	<u>†</u>	<u> </u>	NO	YES
WI	B39	6-252046	11/19/1992	JP		†		NO	YES

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			FILING DATE:	December 17, 2001				
			GROUP:	2813				
		OTHER ART, JOUR	NAL ARTICLES, ET	с.				
EXAM. INIT.	(
Sk	Cl	Armstrong et al., "Design of Si/SiGe Heterojunction Complementary Metal-Oxide-Semiconductor Transistors," IEDM Technical Digest (1995 International Electron Devices Meeting) pp. 761-764.						
	C2	Armstrong, "Technology for SiGe Heterostructure-Based CMOS Devices", PhD Thesis, Massachusetts Institute of Technology, 1999, pp. 1-154.						
	C3	Augusto et al., "Proposal for a New Process Flow for the Fabrication of Silicon-based Complementary MOD-MOSFETs without ion Implantation," Thin Solid Films, vol. 294, no. 1-2, pp. 254-258 February 15, 1997).						
	C4	Barradas et al., "RBS analysis of MBE-grown SiGe/(001) Si heterostructures with thin, high Ge content SiGe channels for HMOS transistors," Modern Physics Letters B (2001) (abstract).						
·	CS	Borenstein et al., "A New Ultra-Hard Etch-Stop Layer for High Precision Micromachining," Proceedings of the 1999 12th IEEE International Conference on Micro Electro Mechanical Systems (MEMs) (January 17-21, 1999) pp. 205-210.						
	C6		Bouillon et al., "Search for the optimal channel architecture for 0.18/0.12 µm bulk CMOS Experimental study," IEEE, (1996) pp. 21.2.1-21.2.4.					
	C7	Bruel et al., "@SMART CUT: A Promis International SOI Conference (October 1	ing New SOI Material Tec 995) pp. 178-179.	hnology," Proceedings 1995 IEEE				
	C8	Bruel, "Silicon on Insulator Material Tec pp. 1201-1202.	hnology," Electronic Lette	rs, Vol. 13, No. 14 (July 6, 1995)				
	C9	Bufler et al., "Hole transport in strained 5 Physics, Vol. 84, No. 10 (November 15,	Si1-xGex alloys on Si1-yG 1998) pp. 5597-5602.	ey substrates," Journal of Applied				
	C10	Burghartz et al., "Microwave Inductors a Technology", IEEE Transactions on Mic 1996, pp. 100-104.						
	C11	Canaperi et al., "Preparation of a relaxed semiconductor devices with strained epit USA (2002) (abstract).						
	C12	Carlin et al., "High Efficiency GaAs-on-IEEE (2000) pp. 1006-1011	Si Solar Cells with High Vo	oc Using Graded GeSi Buffers,"				
	C13	Chang et al., "Selective Etching of SiGe/No. 1 (January 1991) pp. 202-204.	Si Heterostructures," Journ	al of the Electrochemical Society,				
U	C14	Cheng et al., "Electron Mobility Enhance Insulator (SGOI) Substrates," IEEE Elec						
De	C15	Cheng et al., "Relaxed Silicon-Germaniu Electronic Materials, Vol. 30, No. 12 (20		y Layer Transfer," Journal of				

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FORM PTO 1449	ATTY DOCKET NO.:	ASC-023DVC2	
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		OTHER ART, JOURNAL ARTICLES, ETC.
EXAM. INIT.	ОТН	ER DOCUMENTS: (Including Author, Title, Date, Relevant Pages, Place of Publication)
Xh	C16	Cullis et al, "Growth ripples upon strained SiGe epitaxial layers on Si and misfit dislocation interactions," Journal of Vacuum Science and Technology A, Vol. 12, No. 4 (July/August 1994) pp. 1924-1931.
1	C17	Currie et al., "Carrier mobilities and process stability of strained S in- and p-MOSFETs on SiGe virtual substrates," J. Vac. Sci. Technol. B., Vol. 19, No. 6 (Nov/Dec 2001) pp. 2268-2279.
	C18	Eaglesham et al., "Dislocation-Free Stranski-Krastanow Growth of Ge on Si(100)," Physical Review Letters, Vol. 64, No. 16 (April 16, 1990) pp. 1943-1946.
	C19	Feijoo et al., "Epitaxial Si-Ge Etch Stop Layers with Ethylene Diamine Pyrocatechol for Bonded and Etchback Silicon-on-Insulator," Journal of Electronic Materials, Vol. 23, No. 6 (June 1994) pp. 493-496.
	C20	Fischetti et al., "Band structure, deformation potentials, and carrier mobility in strained Si, Ge, and SiGe alloys," J. Appl. Phys., Vol. 80, No. 4 (August 15, 1996) pp. 2234-2252.
	C21	Fischetti, "Long-range Coulomb interactions in small Si devices. Part II. Effective electronmobility in thin-oxide structures," Journal of Applied Physics, Vol. 89, No. 2 (January 15, 2001) pp. 1232-1250.
	C22	Fitzgerald et al., "Dislocation dynamics in relaxed graded composition semiconductors," Materials Science and Engineering B67, (1999) pp. 53-61.
	C23	Fitzgerald et al., "Relaxed GexSi1-x structures for III-V integration with Si and high mobility two- dimensional electron gases in Si," AT&T Bell Laboratories, Murray Hill, NJ 07974 (1992) American Vacuum Society, pp. 1807-1819
	C24	Fitzgerald et al., "Totally Relaxed GexSi1-x Layers with Low Threading Dislocation Densities Grown on Si Substrates," Applied Physics Letters, Vol. 59, No. 7 (August 12, 1991) pp. 811-813.
	C25	Garone et al., "Silicon vapor phase epitaxial growth catalysis by the presence of germane," Applied Physics Letters, Vol. 56, No. 13 (March 26, 1990) pp. 1275-1277.
	C26	Gray and Meyer, "Analysis and Design of Analog Integrated Circuits", John Wiley & Sons, 1984, pp. 605-632.
	C27	Grützmacher et al., "Ge segregation in SiGe/Si heterostructures and its dependence on deposition technique and growth atmosphere," Applied Physics Letters, Vol. 63, No. 18 (November 1, 1993) pp. 2531-2533.
	C28	Hackbarth et al., "Alternatives to thick MBE-grown relaxed SiGe buffers," Thin Solid Films, Vol. 369, No. 1-2 (July 2000) pp. 148-151.
	C29	Hackbarth et al., "Strain relieved SiGe buffers for Si-based heterostructure field-effect transistors," Journal of Crystal Growth, Vol. 201/202 (1999) pp. 734-738.
	C30	Herzog et al., "SiGe-based FETs: buffer issues and device results," Thin Solid Films, Vol. 380 (2000) pp. 36-41.
Kh	C31	Höck et al., "Carrier mobilities in modulation doped Si1-xGex heterostructures with respect to FET applications," Thin Solid Films, Vol. 336 (1998) pp. 141-144.

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FORM PTO - 1449			ATTY DOCKET NO.:	ASC-023DVC2	
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		OTHER ART, JOUR	NAL ARTICLES, ET	C.	
EXAM. INIT.	ОТН	IER DOCUMENTS: (Including Author, Tit	le, Date, Relevant Pages, Pla	ce of Publication)	
Ha	C32	Höck et al., "High hole mobility in Si0.1" transistors grown by plasma-enhanced ch 76, No. 26 (June 26, 2000) pp. 3920-392	emical vapor deposition,"	ide-semiconductor field-effect Applied Physics Letters, Volume	
1	C33	Höck et al., "High performance 0.25 μm No. 19 (September 17, 1998) pp. 1888-1		s," Electronics Letters, Vol. 34,	
	C34	Huang et al., "High-quality strain-relaxed SiGe alloy grown on implanted silicon-on-insulator substrate," Applied Physics Letters, Vol. 76, No. 19 (May 8, 2000) pp. 2680-2682.			
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